

Amendments to the Claims

1. (Currently Amended) A servo method for an optical recording medium for performing a tracking servo and sled servo by receiving an electric signal in proportion to a quantity of reflected light outputted from an optical pickup and detecting a tracking error signal by a push-pull method, the method comprising the steps of:

(a) detecting an amount of offset per track as moving an object lens of the optical pickup in a specified direction; and

(b) performing the tracking servo by generating a tracking drive signal as compensating for the amount of offset with respect to the tracking error signal during a normal servo operation.

2. (Original) The servo method as claimed in claim 1, wherein the step (a) comprises the steps of:

detecting a first tracking drive signal as performing a still function in a reference position where no object lens shift is performed after turning on the tracking servo and turning off a sled servo;

detecting a second tracking drive signal as performing a still function after performing an n-track jump through the object lens shift in either of inner and outer periphery directions from the reference position;

detecting a third tracking drive signal as performing a still function after performing a $2n$ -track jump through the object lens shift in a direction opposite to the direction at the second tracking drive signal detection step; and

detecting the amount of DC offset per track generated through the object lens shift from the first to third tracking drive signals obtained at the tracking drive signal detection steps.

3. (Original) The servo method as claimed in claim 2, wherein at the step of detecting the amount of DC offset per track, the amount of DC offset per track is detected by multiplying a average value of the second and third tracking drive signals by $1/n$ ($=(\text{second tracking drive signal} + \text{third tracking drive signal})/2n$).

4. (Original) The servo method as claimed in claim 2, wherein the step (b) further comprises the step of if an N -track jump command through the object lens shift is inputted, performing the tracking servo after compensating for a value obtained by multiplying the amount of DC offset generated per track by the number N of jumped tracks with respect to the tracking error signal after an N -track jump.

5. (Original) The servo method as claimed in claim 2, wherein the step (b)

further comprises the step of in case of an M-track jump through a sled servo drive, performing a sled servo by generating a sled drive signal by compensating for an initial amount of DC offset with respect to the tracking error signal after obtaining the initial amount of DC offset. Here, the initial amount of DC offset is a value obtained by multiplying the amount of DC offset generated per track by the number M of tracks to be jumped.

6. (Original) The servo method as claimed in claim 5, wherein the direction where the amount of DC offset is compensated for with respect to the tracking error signal to generate the sled drive signal is opposite to the direction where the amount of DC offset is compensated for with respect to the tracking error signal to generate the tracking drive signal.

7. (Original) The servo method as claimed in claim 5, wherein the initial amount of DC offset is a value obtained by multiplying the amount of DC offset generated per track by a number M of tracks to be jumped.

8. (Original) The servo method as claimed in claim 5, wherein at the step (b), if the whole optical pickup is moved by performing a sled servo, a value obtained by subtracting an amount of sled movement from the initial amount of DC offset is determined as a final amount of DC offset, and the tracking

servo is performed as compensating for the final amount of DC offset with respect to the tracking error signal.

9. (Original) The servo method as claimed in claim 8, wherein the amount of sled movement is a value obtained by subtracting the tracking error signal detected after the movement of the whole optical pickup by the sled servo drive from the tracking error signal detected before the sled servo drive.

10. (Currently Amended) A servo method for an optical recording medium for performing a tracking servo and sled servo by receiving an electric signal in proportion to a quantity of reflected light outputted from an optical pickup and detecting a tracking error signal by a push-pull method, the method comprising the steps of:

(a) detecting an amount of DC offset per track as moving an object lens of an optical pickup in a specified direction; and

~~(b) performing the tracking servo based on the amount of DC offset such~~
that

(b1)(b) in case of a normal servo, performing the tracking servo as compensating for the amount of offset per track with respect to the tracking error signal whenever the object lens is shifted;

(c)(b2) in case of an N-track jump through an object lens shift,

performing the tracking servo after compensating for a value obtained by multiplying the amount of DC offset generated per track by the number N of jumped tracks with respect to the tracking error signal when the tracking servo is on after an N-track jump; and

(d)(b3) in case of an M-track jump through a sled servo drive, performing the tracking servo by compensating for an amount of sled movement with respect to the tracking error signal when the tracking servo is on after an M-track jump.

11. (Currently Amended) The servo method as claimed in ~~claim 1~~ claim 10, wherein the step (a) comprises the steps of:

detecting a first tracking drive signal as performing a still function in a reference position where no object lens shift is performed after turning on the tracking servo and turning off a sled servo;

detecting a second tracking drive signal as performing a still function after performing an n-track jump through the object lens shift in either of inner and outer periphery directions from the reference position;

detecting a third tracking drive signal as performing a still function after performing a 2n-track jump through the object lens shift in a direction opposite to the direction at the second tracking drive signal detection step; and

detecting the amount of DC offset per track generated through the object

lens shift from the first to third tracking drive signals obtained at the tracking drive signal detection steps.

12. (Original) The servo method as claimed in claim 11, wherein at the step of detecting the amount of DC offset per track, the amount of DC offset per track is detected by multiplying a average value of the second and third tracking drive signals by $1/n$ ($=(\text{second tracking drive signal} + \text{third tracking drive signal})/2n$).

13. (Currently Amended) The servo method as claimed in claim 10, wherein the step ~~(c)~~(b2) performs the tracking servo by generating the tracking drive signal after subtracting a value obtained by multiplying the amount of DC offset generated per track by the number N of jumped tracks from the tracking error signal.

14. (Currently Amended) The servo method as claimed in claim 10, wherein the step ~~(d)~~(b3) comprises the steps of:

obtaining an initial amount of DC offset by multiplying the DC offset generated per track by the number M of tracks to be jumped when the sled servo is driven; and

performing the sled servo after generating a sled drive signal by adding the

initial amount of DC offset to the tracking error signal.

15. (Currently Amended) The servo method as claimed in claim 14, wherein at the step (d)(b3), if the whole optical pickup is moved by performing the sled servo, a final amount of DC offset is obtained by subtracting the amount of sled movement from the initial amount of DC offset, and the tracking servo is performed by generating a tracking drive signal after subtracting the final amount of DC offset from the tracking error signal.

16. (Original) The servo method as claimed in claim 11, wherein the amount of sled movement is a value obtained by subtracting the tracking error signal detected after the movement of the whole optical pickup by the sled servo drive from the tracking error signal detected before the sled servo drive.

17. (Original) A servo method for an optical recording medium for performing a tracking servo and sled servo by receiving an electric signal in proportion to a quantity of reflected light outputted from an optical pickup and detecting a tracking error signal by a push-pull method, the method comprising the steps of:

(a) detecting an amount of DC offset per track as moving an object lens of an optical pickup in a specified direction before a servo operation for

recording/reproduction; and

(b) performing the recording/reproduction by performing a tracking servo as compensating for the amount of DC offset per track with respect to a tracking error signal during the normal servo operation for the recording/reproduction.